IN THE CLAIMS:

At page 10, line 1, please amend the title as follows:

~~PATENT CLAIMS~~

CLAIMS

1. (Currently Amended) Method for determining the content of a conductive component of a multi phase flow through a pipe, by supplying alternate voltage to one or more coils being arranged around the fluid conducting pipe, and then detecting the attenuation of the magnetic fields due to the induced power loss dependent or the coil impedance at resonance, dependent on the conductivity of any conductive phase component of the fluid flow, characterized in measuring the impedance of the coils at resonance frequency, said impedance varying as a function of content of the conductive phase, by using

a first coil design having a given number of windings optimised for non-conductive continous mixtures, and

a second coil design of a different number of windings optimised for conductive continous mixtures.

2. (Currently Amended) Method according to claim 1, characterized in the two coils are operating at two different frequencies in order to compensate for variation in the conductivity, hence determining said conductivity of the conductive phase.

3. (Currently Amended) Method according to claim 1, characterized in using wire or cords including Cu-lices having a thickness less than the electrical skin depth of Cu (copper).

4. (Currently Amended) Method according to claim 1, characterized in using flat Cu-lices at a thickness of 40 μm.

5. (Currently Amended) Method according to claim 1,characterized in using a resonance frequency in the range of 1-10MHz, and preferably in the range of 2 to 8 MHz.

6. (Currently Amended) Method according to claim 1, characterized in using a resonance frequency of 5,5 Mhz in order to obtaining a penetration depth in the multi

phase order to obtaining a penetration depth in the multi phase flow, of about 10 cm, corresponding to at least half the pipe diameter.

7. (Currently Amended) Method according to claim 1, characterized in using a first coil design of one layer of 15 windings of flat Cu-cord said coil operating at a frequency of f = 2 MHz, and

a second coil design of 4 layers of 4 windings of flat Cu-cord said coil operating at a frequency of f = 9 MHz.

8. (Currently Amended) Method according to claim 1, characterized in using one single multi turn coil, in particular a 9-turn coil, which is sensitive for conductive liquid content (such as water) in the mixture over the whole range.

9. (Currently Amended) Method to measure the distribution of a conductive component in the cross section of a pipe, characterized in using a number of coils arranged to the outside surface of the fluid transporting pipe, the coils being arranged to be driven to reconance frequency one at a time, for determining the power loss generated in the alternating magnetic field from one coil at the time.

10. (Currently Amended) Method according to claim 9, characterized in working out a reconstruction algorithm imaging the water distribution in the meter cross section based on mathematical models of the magnetic field from the coils.

11. (Currently Amended) Method according to claim 9, characterized in exciting one of the coils at a time and use all the other coils as pick up coils and detect the attenuation of the magnetic field from the transmitter to the receiver coils and thus reconstruct a picture of the area of low field penetration being areas of water.

12. (Currently Amended) Arrangement of determining content of a conductive component of a multi phase flow through a pipe, by supplying alternate voltage to coils which are arranged around said pipe, and then detecting the attenuation of the magnetic fields due to the induced power loss dependent on the conductivity of the conductive phase of the fluid flow, characterized by

a first coil design having a given number of windings being optimised for non-conductive continous mixtures, and a coil

a second coil having a different number of windings being optimised for conductive continous mixtures,

said coils being arranged for measuring the impedance of the coils at resonance frequency, said impedance varying as a function of content of the conductive phase.

13. (Currently Amended) Arrangement according to claim 12, characterized by

a first coil design of one layer of 15 windings of flat Cu-cord said coil operating at a frequency of f = 2 MHz, and

a second coil design of 4 layers of 4 windings of flat Cu-cord said coil operating at a frequency of f = 9 MHz.

14. (Currently Amended) Arrangement according to claim 12, characterized in using wire or cords including Cu-lices having a thickness less than the electrical skin depth of Cu (copper).

15. (Currently Amended) Arrangement according to in using flat Cu-lices at a thickness of 40 μm.

16. (Currently Amended) Arrangement according to claim 12, characterized by a multi turn coil, e. g. a 9-turn coil, which is sensitive for water content in the mixture over the whole range.

17. (Currently Amended) Arrangement to measure the distribution of a conductive component in the cross section of a pipe, characterized in using a number of coils arranged to the outside surface of the fluid transporting pipe, the coils being arranged to be driven to reconance frequency one at a time, for determining the power loss generated in the alternating magnetic field from one coil at the time.

18. (Currently Amended) Arrangement according to claim 17, characterized by a reconstruction algorithm imaging the water distribution in the meter cross section based on mathematical models of the magnetic field from the coils.

19. (Currently Amended) Application of the arrangement according to claim 17, for determining the water content of a multi phase flow of oil, hydrocarbon gas and

water, in that water is the conductive component to be determined and the oil and gas phases being the non-conductive phase.

20. (Currently Amended) Application of the arrangement according to claim 17, for measuring water content in oil/gas/water multiphase mixture flows wherein the different phases in the crude are separated, i.e, not homogeneous mixed.